Amendment to the Abstract:

The Abstract has been amended. A revised Abstract is attached.

The invention relates to an autonomous switching transformer, in which~~:~~ an input voltage ~~(U<SB>E</SB>)~~ can be applied to a storage inductor ~~(L1)~~ by means of a first semiconductor switch ~~(T1); the~~. The voltage drop of a sensor resistor ~~(R2)~~ that is connected in series to the first semiconductor switch ~~(T1)~~ is fed to a control electrode of a second semiconductor switch ~~(T2); the~~. The input voltage ~~(U<SB>E</SB>)~~ is connected to the control electrode of the first semiconductor switch ~~(T1)~~ via a resistor ~~(R1); and said~~. This control electrode can be grounded via the second semiconductor switch ~~(T2)~~. During a first conduction phase of a first time duration ~~(t1)~~ of the first semiconductor switch and an increase in current through the storage inductor, the second semiconductor switch becomes conductive and breaks the contact of the first semiconductor switch ~~(T1)~~. The storage inductor ~~(L1)~~ then supplies energy to an output capacitor ~~(C2)~~ for a second time duration ~~(t2)~~ via a rectifier diode ~~(D1)~~, until the capacitor ~~(C1)~~ of a series RC-element that connects the switching input of the second semiconductor switch ~~(T2)~~ to the input voltage is charged, the contact of the second semiconductor switch ~~(T2)~~ is broken and the first semiconductor switch becomes conductive again ~~(T1)~~.